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|              |    |         |   |
|--------------|----|---------|---|
| NEWS         | 1  |         | Web Page URLs for STN Seminar Schedule - N. America   |
| NEWS         | 2  |         | "Ask CAS" for self-help around the clock  |
| NEWS         | 3  | FEB 27  | New STN AnaVist pricing effective March 1, 2006   |
| NEWS         | 4  | APR 04  | STN AnaVist \$500 visualization usage credit offered  |
| NEWS         | 5  | MAY 10  | CA/CAPLUS enhanced with 1900-1906 U.S. patent records   |
| NEWS         | 6  | MAY 11  | KOREAPAT updates resume   |
| NEWS         | 7  | MAY 19  | Derwent World Patents Index to be reloaded and enhanced   |
| NEWS         | 8  | MAY 30  | IPC 8 Rolled-up Core codes added to CA/CAPLUS and<br>USPATFULL/USPAT2   |
| NEWS         | 9  | MAY 30  | The F-Term thesaurus is now available in CA/CAPLUS  |
| NEWS         | 10 | JUN 02  | The first reclassification of IPC codes now complete in<br>INPADOC  |
| NEWS         | 11 | JUN 26  | TULSA/TULSA2 reloaded and enhanced with new search and<br>and display fields  |
| NEWS         | 12 | JUN 28  | Price changes in full-text patent databases EPFULL and PCTFULL  |
| NEWS         | 13 | JUL 11  | CHEMSAFE reloaded and enhanced  |
| NEWS         | 14 | JUL 14  | FSTA enhanced with Japanese patents   |
| NEWS         | 15 | JUL 19  | Coverage of Research Disclosure reinstated in DWPI  |
| NEWS         | 16 | AUG 09  | INSPEC enhanced with 1898-1968 archive  |
| NEWS EXPRESS |    | JUNE 30 | CURRENT WINDOWS VERSION IS V8.01b, CURRENT<br>MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),<br>AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006. |
| NEWS HOURS   |    |         | STN Operating Hours Plus Help Desk Availability   |
| NEWS LOGIN   |    |         | Welcome Banner and News Items   |
| NEWS IPC8    |    |         | For general information regarding STN implementation of IPC 8   |
| NEWS X25     |    |         | X.25 communication option no longer available   |

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:00:58 ON 10 AUG 2006

COST IN U.S. DOLLARS

TOTAL

SESSION

0.21

0.21

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STRUCTURE FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2

DICTIONARY FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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<http://www.cas.org/ONLINE/UG/regprops.html>

 $\Rightarrow$ 

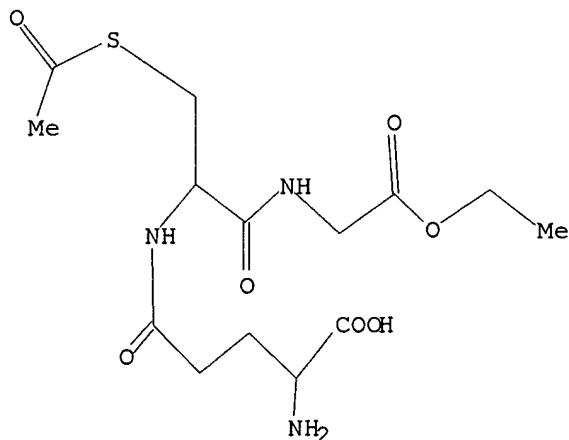
Uploading C:\Program Files\Stnexp\Queries\10750005\S-Ac-GSH-OEt.str

L1        STRUCTURE   UPLOADED

=> dis

L1 HAS NO ANSWERS

|    |     |
|----|-----|
| L1 | STR |
|----|-----|



Structure attributes must be viewed using STN Express query preparation.

=> s L1 FULL

FULL SEARCH INITIATED 15:01:42 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 387 TO ITERATE

100.0% PROCESSED 387 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

L2 1 SEA SSS FUL L1

=> fil hcap uspatful  
COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 166.94     | 167.15  |

FILE 'HCAPLUS' ENTERED AT 15:01:55 ON 10 AUG 2006  
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FILE 'USPATFULL' ENTERED AT 15:01:55 ON 10 AUG 2006  
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> L2

L3 4 L2

=> d L3 1-4 ibib abs hitstr

L3 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:999662 HCAPLUS

DOCUMENT NUMBER: 141:406156

TITLE: Methods for reducing oxidative stress in a cell with a  
sulphydryl protected glutathione prodrug

INVENTOR(S): Nagasawa, Herbert T.; Cohen, Jonathan F.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2004229815 | A1   | 20041118 | US 2003-750005  | 20031230 |
| WO 2005074903 | A2   | 20050818 | WO 2004-US43660 | 20041227 |
| WO 2005074903 | A3   | 20060223 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,

MR, NE, SN, TD, TG  
 PRIORITY APPLN. INFO.:

US 2003-437872P P 20030103  
 US 2003-750005 A 20031230

AB The invention relates to compns. and methods for reducing oxidative stress in a cell. The invention is comprised of contacting a cell with a sulfhydryl protected glutathione or cysteine prodrug thereby increasing intracellular glutathione or L-cysteine levels resulting in reduced hepatotoxicity.

IT 139774-74-6 139774-74-6D, derivs.

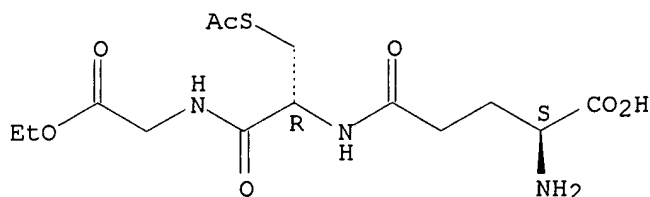
RL: PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sulfhydryl protected glutathione prodrug reduces oxidative stress in cells)

RN 139774-74-6 HCAPLUS

CN Glycine, N-(S-acetyl-N-L-γ-glutamyl-L-cysteinyl)-, 1-ethyl ester  
 (9CI) (CA INDEX NAME)

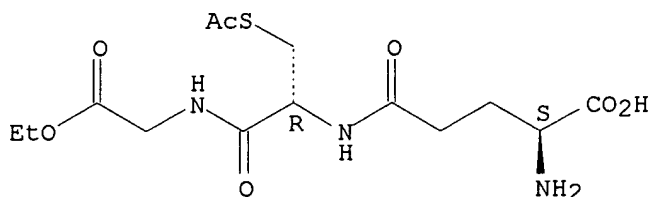
Absolute stereochemistry.



RN 139774-74-6 HCAPLUS

CN Glycine, N-(S-acetyl-N-L-γ-glutamyl-L-cysteinyl)-, 1-ethyl ester  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:152418 HCAPLUS

DOCUMENT NUMBER: 116:152418

TITLE: A process for the preparation of glutathione S-acyl derivatives, compounds obtained from said process and an intermediate useful for the preparation thereof

INVENTOR(S): Galzigna, Lauro

PATENT ASSIGNEE(S): Boehringer Mannheim Italia S.p.A., Italy

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| WO 9200320   | A1   | 19920109 | WO 1991-EP1154  | 19910621   |
| W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MC, MG, MN, MW, NO, PL, RO, SD, SU, US                  |      |          |                 |            |
| RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG |      |          |                 |            |
| CA 2086107   | AA   | 19911227 | CA 1991-2086107 | 19910621   |
| AU 9180736   | A1   | 19920123 | AU 1991-80736   | 19910621   |
| EP 536231  | A1   | 19930414 | EP 1991-912027  | 19910621   |
| EP 536231  | B1   | 19961023 |                 |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE  |      |          |                 |            |
| JP 05508405  | T2   | 19931125 | JP 1991-511061  | 19910621   |
| AT 144532  | E    | 19961115 | AT 1991-912027  | 19910621   |
| ES 2095940   | T3   | 19970301 | ES 1991-912027  | 19910621   |
| US 5382679   | A    | 19950117 | US 1993-958344  | 19930210   |
| PRIORITY APPLN. INFO.:   |      |          | IT 1990-20760   | A 19900626 |
|  |      |          | WO 1991-EP1154  | A 19910621 |

OTHER SOURCE(S): CASREACT 116:152418

AB A selective and high yield process for S-acylating glutathione, comprising of the reaction between glutathione and an acyl chloride or a carboxylic acid anhydride in trifluoroacetic acid is described. Thus, addition of acid chlorides  $\text{RCOCl}$  ( $\text{R} = \text{Me}_3\text{C}, \text{Me}, \text{Ph}, \text{PhCH}_2, \text{thienyl}$ ) to a solution of reduced glutathione in  $\text{F}_3\text{CCO}_2\text{H}$  gave S-acyl derivs.  $\text{H-Glu[Cys(COR)-Gly-OH]-OH}$  in 78-85% yields.

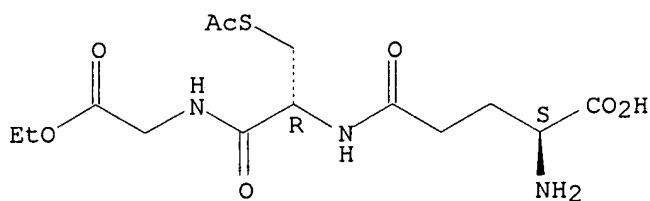
IT 139774-74-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 139774-74-6 HCAPLUS

CN Glycine, N-(S-acetyl-N-L- $\gamma$ -glutamyl-L-cysteinyl)-, 1-ethyl ester  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2004:292726 USPATFULL

TITLE: Methods for reducing oxidative stress in a cell with a  
sulfhydryl protected glutathione prodrug

INVENTOR(S): Nagasawa, Herbert T., Richfield, MN, UNITED STATES  
Cohen, Jonathan F., Prior Lake, MN, UNITED STATES

|                     | NUMBER         | KIND | DATE          |
|---------------------|----------------|------|---------------|
| PATENT INFORMATION: | US 2004229815  | A1   | 20041118      |
| APPLICATION INFO.:  | US 2003-750005 | A1   | 20031230 (10) |

| NUMBER | DATE |
|--------|------|
|--------|------|

-----  
 PRIORITY INFORMATION: US 2003-437872P 20030103 (60)  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: MANDEL & ADRIANO, 55 SOUTH LAKE AVENUE, SUITE 710,  
 PASADENA, CA, 91101  
 NUMBER OF CLAIMS: 34  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 4 Drawing Page(s)  
 LINE COUNT: 703

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for reducing oxidative stress in a cell, increasing glutathione levels in a cell, increasing L-cysteine levels in a cell and reducing hepatocytotoxicity by contacting a cell with a sulfhydryl protected glutathione prodrug or a sulfhydryl protected cysteine prodrug.

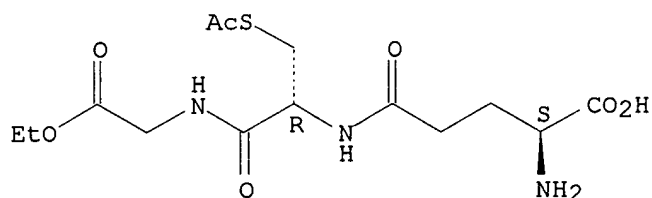
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 139774-74-6 139774-74-6D, derivs.  
 (sulfhydryl protected glutathione prodrug reduces oxidative stress in cells)

RN 139774-74-6 USPATFULL

CN Glycine, N-(S-acetyl-N-L-γ-glutamyl-L-cysteinyl)-, 1-ethyl ester  
 (9CI) (CA INDEX NAME)

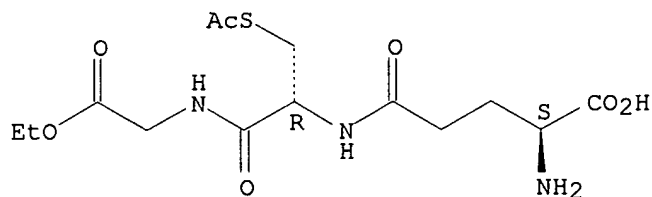
Absolute stereochemistry.



RN 139774-74-6 USPATFULL

CN Glycine, N-(S-acetyl-N-L-γ-glutamyl-L-cysteinyl)-, 1-ethyl ester  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 4 OF 4 USPATFULL on STN

ACCESSION NUMBER: 95:6021 USPATFULL

TITLE: Process for the preparation of glutathione S-acyl derivatives, compounds obtained from said process and an intermediate useful for the preparation thereof

INVENTOR(S): Galzigna, Lauro, Padua, Italy

PATENT ASSIGNEE(S): Boehringer Mannheim Italia S.p.A., Milan, Italy  
(non-U.S. corporation)

|                     | NUMBER         | KIND | DATE         |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 5382679     |      | 19950117     |
| APPLICATION INFO.:  | US 1993-958344 |      | 19930210 (7) |

|                       | NUMBER                            | DATE     |
|-----------------------|-----------------------------------|----------|
| PRIORITY INFORMATION: | IT 1990-2076090                   | 19900626 |
| DOCUMENT TYPE:        | Utility                           |          |
| FILE SEGMENT:         | Granted                           |          |
| PRIMARY EXAMINER:     | Dees, Jose G.                     |          |
| ASSISTANT EXAMINER:   | Conrad, Joseph M.                 |          |
| LEGAL REPRESENTATIVE: | Nikaido Marmelstein Murray & Oram |          |
| NUMBER OF CLAIMS:     | 7                                 |          |
| EXEMPLARY CLAIM:      | 1                                 |          |
| LINE COUNT:           | 393                               |          |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A selective and high yield process for S-acylating glutathione, comprising the reaction between glutathione and an acyl chloride or a carboxylic anhydride in trifluoroacetic acid is described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

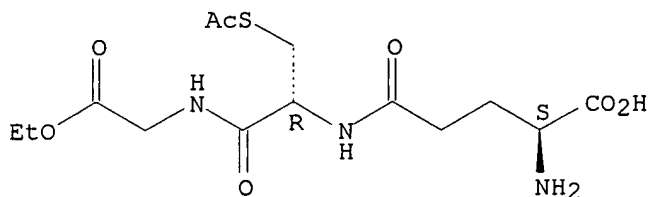
IT 139774-74-6P

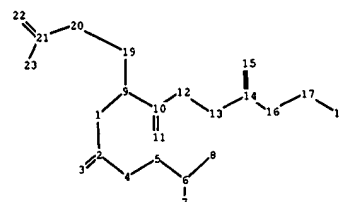
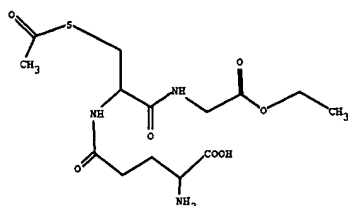
(preparation of)

RN 139774-74-6 USPATFULL

CN Glycine, N-(S-acetyl-N-L-γ-glutamyl-L-cysteinyl)-, 1-ethyl ester  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.





chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22  
23

chain bonds :

1-2 1-9 2-3 2-4 4-5 5-6 6-7 6-8 9-10 9-19 10-11 10-12 12-13 13-14  
14-15 14-16 16-17 17-18 19-20 20-21 21-22 21-23

exact/norm bonds :

1-2 1-9 2-3 6-7 10-11 10-12 12-13 14-15 14-16 16-17 19-20 20-21  
21-22

exact bonds :

2-4 4-5 5-6 6-8 9-10 9-19 13-14 17-18 21-23

Match level :

1:CLASS2:CLASS3:CLASS4:CLASS5:CLASS6:CLASS7:CLASS8:CLASS9:CLASS  
10:CLASS11:CLASS12:CLASS13:CLASS14:CLASS15:CLASS16:CLASS17:CLASS  
18:CLASS19:CLASS20:CLASS21:CLASS22:CLASS23:CLASS